

2008 Model Year POLICE VEHICLE EVALUATION



**STATE OF MICHIGAN
Department of State Police
and
Department of Management and Budget**

**2008 Model Year
Police Vehicle
Evaluation Program**

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PREFACE

The Michigan State Police Vehicle Test Team is pleased to announce the results of the 2008 model year Police Vehicle Evaluation. This year we tested nineteen vehicles in total, including one pickup truck, one Suburban and three motorcycles. We appreciate your continued support and encouragement. The vehicles evaluated this year include the following:

POLICE CATEGORY

Ford Police Interceptor (3.27:1)	4.6L
Ford Police Interceptor (3.27:1) E85	4.6L
Ford Police Interceptor (3.55:1)	4.6L
Chevrolet Impala 9C1	3.9L
Chevrolet Impala 9C1 E85	3.9L
Chevrolet Tahoe PPV 2WD	5.3L
Chevrolet Tahoe PPV 2WD E85	5.3L
Dodge Charger	3.5L
Dodge Charger	5.7L
Dodge Magnum	3.5L
Dodge Magnum	5.7L

SPECIAL SERVICE CATEGORY

*Special Service Package vehicles are not suitable for high speed, pursuit or emergency driving.

Ford Explorer*	4.6L SFI	(2 Wheel Drive)
Ford Expedition*	5.4L 3V SMFI	(2 Wheel Drive)
Ford F-150 2WD Super Crew*	5.4L 3V SMFI	(2 Wheel Drive)
Chevrolet Tahoe*	5.3L SPFI	(4 Wheel Drive)
Chevrolet Suburban ¾ Ton*	6.0L SPFI	(4 Wheel Drive)

MOTORCYCLES

Harley Davidson Electra Glide FLHTP
Harley Davidson Road King FLHP
BMW Motorrad USA R1200RT-P

GENERAL INFORMATION

All of the cars and trucks were tested with a clean roof (no overhead light or lightbar) and without "A" pillar mount spotlights. We believe this is the best way to ensure all of the vehicles are tested on an equal basis. Remember that once overhead lights, spotlights, radio antennas, sirens, and other emergency equipment are installed, overall performance may be somewhat lower than we report.

Each vehicle was tested with the tires that are available as original equipment on the production model. Specific tire information for each vehicle is available in the Vehicle Description portion of this report. All vehicles listed in this report were equipped with electronic speed limiters.

Motorcycles were tested with equipment installed as provided by their respective manufacturer. Harley Davidson chose to test their motorcycles with minimal equipment. BMW chose to test their motorcycle with the majority of the equipment installed. We will continue to refine the testing procedures with the motorcycle manufacturers and their participation.

Chrysler Proving Grounds - Acceleration, Top Speed, & Braking Tests

We had a full line up of test vehicles and we would like to thank the assistance we got from Mr. Craig Hageman from the Chrysler Proving Grounds, our host. We appreciate the support we received from General Motors, Ford, Chrysler, Harley Davidson and BMW during testing. This also was the second year of motorcycle testing and we continue to get great feedback on this important component to the testing lineup. We expect other manufacturers that produce law enforcement motorcycles to participate in the future.

Michigan State Police Precision Driving Unit- Motorcycle Dynamics

Sunday we completed the motorcycle dynamics testing with great weather.

Grattan Raceway - Vehicle Dynamics (High Speed Handling) Test

We had a power steering pump go out on a CVPI at Grattan Raceway Park.

*The Chevrolet 4WD Tahoe, Chevrolet Suburban, Ford Explorer, Ford Expedition, Ford F150 Super Crew are "special service" vehicles and are not driven through the vehicle dynamics (high-speed handling) test. These vehicles are not engineered or recommended for high-speed emergency driving or pursuit applications.

We recommend you review the information contained in this report and then apply it to the needs of your agency. This report is not an endorsement of products, but a means of learning what's available for your officers so they can do their job effectively and safely. If anything in this report requires further explanation or clarification, please call or write.

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Colonel Peter C. Munoz, Director, Michigan Department of State Police
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Canfield Equipment Service, Inc. for assisting us with communication evaluations for the vehicles and motorcycles.

Special thanks to General Motors, Ford Motor Company, Chrysler Motors, Harley Davidson Motorcycles and BMW Motorrad USA for their hard work in building and preparing the test cars and motorcycles. We are grateful for your dedication to law enforcement. Everyday law enforcement looks to these vehicles to do a list of duties varied and enduring.

Finally, thanks to all in the United States and Canada who represent law enforcement and purchasing agencies for your constant encouragement and support. We are proud to make a contribution to the law enforcement community.

Michigan State Police Vehicle Test Team:



TEST EQUIPMENT

The following test equipment is utilized during the acceleration, top speed, braking, and vehicle dynamics portions of the evaluation program.

CORRSYS DATRON TECHNOLOGY, INC., 21654 Melrose Ave., Building 16, Southfield, Michigan 48075

DLS Smart Sensor – Optical non-contact speed and distance sensor

MicroSat GPS Speed and Distance Sensor

Shoei Helmets, 3002 Dow Ave., Suite 128, Tustin, CA 92780

Law Enforcement Helmet – Model RJ-Air LE

AMB i.t. US INC., 1631 Phoenix Blvd., Suite 11, College Park, GA 30349

AMB TranX extended loop decoder

Mains adapter 230 V AC/12 V DC

AMB TranX260 transponders

AMMCO TOOLS, Inc., 2100 Commonwealth Ave., North Chicago, IL 60064

Decelerometer, Model 7350

TEST VEHICLE DESCRIPTIONS AND PHOTOGRAPHS

Ford Police Interceptor

4.6L Axle Ratio 3.27:1



TEST VEHICLE DESCRIPTION

MAKE Ford	MODEL Police Interceptor		SALES CODE NO. P71	
ENGINE DISPLACEMENT	CUBIC INCHES 281		LITERS	4.6
FUEL SYSTEM	Sequential Multiport Fuel Injection E85 Capable		EXHAUST	Dual
HORSEPOWER (SAE NET)	250 @ 5000 RPM		ALTERNATOR	200
TORQUE	297ft-lbs @ 4000 RPM		BATTERY	750 CCA
COMPRESSION RATIO	9.4:1			
TRANSMISSION	MODEL 4R70W		TYPE 4-Speed Electronic Automatic	
	LOCKUP TORQUE CONVERTER? Yes			
	OVERDRIVE? Yes			
AXLE RATIO	3.27			
STEERING	Power Rack and Pinion, variable ratio			
TURNING CIRCLE (CURB TO CURB)	40.3 ft.			
TIRE SIZE, LOAD & SPEED RATING	Goodyear Eagle RS-A P235/55R17 98W			
SUSPENSION TYPE (FRONT)	Independent SLA with ball joint & coil spring			
SUSPENSION TYPE (REAR)	4 bar link with Watts Linkage			
GROUND CLEARANCE, MINIMUM	5.6 in.	LOCATION Exhaust joint		
BRAKE SYSTEM	Power, dual front piston, single rear piston, 4 circuit and ABS			
BRAKES, FRONT	TYPE Vented disc		SWEPT AREA 273 sq. in.	
BRAKES, REAR	TYPE Vented disc		SWEPT AREA 176 sq. in.	
FUEL CAPACITY	GALLONS 19.0		LITERS	71.9
GENERAL MEASUREMENTS	WHEELBASE 114.6 in.		LENGTH	212.0 in.
	TEST WEIGHT 4145		HEIGHT	58.3 in.
HEADROOM	FRONT 39.5 in.		REAR	37.8 in.
LEGROOM	FRONT 41.6 in.		REAR	38.0 in.
SHOULDER ROOM	FRONT 60.6 in.		REAR	60.0 in.
HIPROOM	FRONT 57.4 in.		REAR	56.1 in.
INTERIOR VOLUME	FRONT 57.6 cu. ft.		REAR	48.8 cu. ft.
	COMB 106.4 cu. ft.		TRUNK	20.6 cu. ft.
EPA MILEAGE EST. (MPG)	CITY 14	HIGHWAY 21		COMBINED 16
EPA MILEAGE EST. (MPH) E85	CITY 10	HIGHWAY 16		COMBINED 12

Ford Police Interceptor

4.6L Axle Ratio 3.55:1



TEST VEHICLE DESCRIPTION

MAKE Ford	MODEL Police Interceptor		SALES CODE NO. P71	
ENGINE DISPLACEMENT	CUBIC INCHES 281		LITERS	4.6
FUEL SYSTEM	Sequential Multiport Fuel Injection E85 Capable		EXHAUST	Dual
HORSEPOWER (SAE NET)	250 @ 5000 RPM		ALTERNATOR	200
TORQUE	297 ft-lbs @ 4000 RPM		BATTERY	750 CCA
COMPRESSION RATIO	9.4:1			
TRANSMISSION	MODEL 4R70W		TYPE 4-Speed Electronic Automatic	
	LOCKUP TORQUE CONVERTER? Yes			
	OVERDRIVE? Yes			
AXLE RATIO	3.55			
STEERING	Power Rack and Pinion, variable ratio			
TURNING CIRCLE (CURB TO CURB)	40.3 ft.			
TIRE SIZE, LOAD & SPEED RATING	Goodyear Eagle RS-A P235/55R17 98W			
SUSPENSION TYPE (FRONT)	Independent SLA with ball joint & coil spring			
SUSPENSION TYPE (REAR)	4 bar link with Watts Linkage			
GROUND CLEARANCE, MINIMUM	5.6 in.	LOCATION Exhaust joint		
BRAKE SYSTEM	Power, dual front piston, single rear piston, 4 circuit and ABS			
BRAKES, FRONT	TYPE Vented disc		SWEPT AREA 273 sq. in.	
BRAKES, REAR	TYPE Vented disc		SWEPT AREA 176 sq. in.	
FUEL CAPACITY	GALLONS 19.0		LITERS	71.9
GENERAL MEASUREMENTS	WHEELBASE 114.6 in.		LENGTH 212.0 in.	
	TEST WEIGHT 4128		HEIGHT 58.3 in.	
HEADROOM	FRONT 39.5 in.		REAR 37.8 in.	
LEGROOM	FRONT 41.6 in.		REAR 38.0 in.	
SHOULDER ROOM	FRONT 60.6 in.		REAR 60.0 in.	
HIPROOM	FRONT 57.4 in.		REAR 56.1 in.	
INTERIOR VOLUME	FRONT 57.6 cu. ft.		REAR 48.8 cu. ft.	
	COMB 106.4 cu. ft.		TRUNK 20.6 cu. ft.	
EPA MILEAGE EST. (MPG)	CITY 14	HIGHWAY 21		COMBINED 16

Chevrolet Impala *(9C1) 3.9L SPFI*



TEST VEHICLE DESCRIPTION

MAKE Chevrolet	MODEL Impala 9C1		SALES CODE NO. 1WS19	
ENGINE DISPLACEMENT	CUBIC INCHES 237		LITERS	3.9
FUEL SYSTEM	Sequential Port Fuel Injection E85 Capable		EXHAUST	Single
HORSEPOWER (SAE NET)	240 @ 5200 RPM		ALTERNATOR	150 amp.
TORQUE	240 ft-lbs @ 4000 RPM		BATTERY	750 CCA
COMPRESSION RATIO	9.4:1			
TRANSMISSION	MODEL 4T65E		TYPE 4-Speed Automatic	
	LOCKUP TORQUE CONVERTER? Yes			
	OVERDRIVE? Yes			
AXLE RATIO	3.29:1			
STEERING	Power Rack and Pinion			
TURNING CIRCLE (CURB TO CURB)	38.0 ft.			
TIRE SIZE, LOAD & SPEED RATING	Pirelli P6, P225R16 97V			
SUSPENSION TYPE (FRONT)	Independent McPherson strut, coil springs & stabilizer bar			
SUSPENSION TYPE (REAR)	Independent Tri-Link coil spring over strut & stabilizer bar			
GROUND CLEARANCE, MINIMUM	7.1 in.	LOCATION Engine cradle		
BRAKE SYSTEM	Power, dual hydraulic, anti-lock			
BRAKES, FRONT	TYPE Vented disc		SWEPT AREA 235.4 sq. in.	
BRAKES, REAR	TYPE Solid disc		SWEPT AREA 160.3 sq. in.	
FUEL CAPACITY	GALLONS 17.0		LITERS	64.3
GENERAL MEASUREMENTS	WHEELBASE 110.5 in.		LENGTH	200.4 in.
	TEST WEIGHT 3714		HEIGHT	58.7 in.
HEADROOM	FRONT 39.4 in.		REAR	37.8 in.
LEGROOM	FRONT 42.3 in.		REAR	37.6 in.
SHOULDER ROOM	FRONT 58.7 in.		REAR	58.6 in.
HIPROOM	FRONT 56.4 in.		REAR	57.2 in.
INTERIOR VOLUME	FRONT 56.5 cu. ft.		REAR 55.7 cu. ft.	
	COMB 104.8 cu. ft.		TRUNK 18.6 cu. ft. w/ compact spare	
EPA MILEAGE EST. (MPG)	CITY 18	HIGHWAY 27		COMBINED 21
EPA MILEAGE EST. (MPG) E85	CITY 13	HIGHWAY 20		COMBINED 16

Chevrolet Tahoe PPV

5.3L SPFI



VEHICLE TEST DESCRIPTION

MAKE Chevrolet	MODEL Tahoe PPV – 2WD		SALES CODE NO. CC10706	
ENGINE DISPLACEMENT	CUBIC INCHES 327		LITERS	5.3
FUEL SYSTEM	Sequential Port Fuel Injection E85 Capable		EXHAUST	Single
HORSEPOWER (SAE NET)	320 @ 5200 RPM		ALTERNATOR	160
TORQUE	340 ft-lbs @ 4000 RPM		BATTERY	730 CCA
COMPRESSION RATIO	9.5:1			
TRANSMISSION	MODEL 4L60E		TYPE 4 – Speed Automatic Overdrive	
	LOCKUP TORQUE CONVERTER? Yes			
	OVERDRIVE? Yes			
AXLE RATIO	3.73			
STEERING	Power – Rack & Pinion			
TURNING CIRCLE (CURB TO CURB)	39.0 ft.			
TIRE SIZE, LOAD & SPEED RATING	Goodyear Eagle RS-A P265/60R17 108H			
SUSPENSION TYPE (FRONT)	Independent, single coil over shock with stabilizer bar			
SUSPENSION TYPE (REAR)	Multi-link with coil springs			
GROUND CLEARANCE, MINIMUM	8.00 in.	LOCATION Rear axle		
BRAKE SYSTEM	Vacuum-boost, power, anti-lock			
BRAKES, FRONT	TYPE Disc		SWEPT AREA 213 sq. in.	
BRAKES, REAR	TYPE Disc		SWEPT AREA 133 sq. in.	
FUEL CAPACITY	GALLONS 26.0		LITERS	98.4
GENERAL MEASUREMENTS	WHEELBASE 116 in.		LENGTH 198.9 in.	
	TEST WEIGHT 5273		HEIGHT 73.9	
HEADROOM	FRONT 40.3 in.		REAR 39.2 in.	
LEGROOM	FRONT 41.3 in.		REAR 39.0 in.	
SHOULDER ROOM	FRONT 65.3 in.		REAR 65.2 in.	
HIPROOM	FRONT 64.4 in.		REAR 60.6 in.	
INTERIOR VOLUME *MAX. CARGO IS W/REAR SEATS FOLDED DOWN	FRONT 62.9 cu. ft.		REAR 57.68 cu. ft.	
	COMB 120.58 cu. ft.		*MAX. CARGO 108.9 cu. ft.	
EPA MILEAGE EST. (MPG)	CITY 14	HIGHWAY 19		COMBINED 16
EPA MILEAGE EST. (MPG) E85	CITY 11	HIGHWAY 14		COMBINED 12

Dodge Charger

3.5L SPFI



TEST VEHICLE DESCRIPTION

MAKE Dodge	MODEL Charger		SALES CODE NO. 27A	
ENGINE DISPLACEMENT	CUBIC INCHES 214		LITERS	3.5
FUEL SYSTEM	Sequential Port Fuel Injection		EXHAUST	Single
HORSEPOWER (SAE NET)	250 @ 6400		ALTERNATOR	160 Amp
TORQUE	250 lbs-ft @ 3800		BATTERY	800 CCA
COMPRESSION RATIO	10.0:1			
TRANSMISSION	MODEL A580		TYPE 5 Speed Electronic Automatic	
	LOCKUP TORQUE CONVERTER? Yes			
	OVERDRIVE? Yes			
AXLE RATIO	2.87:1			
STEERING	Power Rack & Pinion			
TURNING CIRCLE (CURB TO CURB)	38.9			
TIRE SIZE, LOAD & SPEED RATING	Continental ContiProContact P225/60 R 18 99V			
SUSPENSION TYPE (FRONT)	Independent High Arm SLA with Dual Ball Joint Lower, Coil Spring, Sway Bar			
SUSPENSION TYPE (REAR)	Independent Multi-Link, Coil Spring, Sway Bar			
GROUND CLEARANCE, MINIMUM	5.2 in.	LOCATION Fascia Belly Pan		
BRAKE SYSTEM	Power, Dual Piston Front/Single Piston Rear, Anti-Lock			
BRAKES, FRONT	TYPE Vented Disc		SWEPT AREA 282 sq. in.	
BRAKES, REAR	TYPE Vented Disc		SWEPT AREA 242 sq. in.	
FUEL CAPACITY	GALLONS 19		LITERS	72
GENERAL MEASUREMENTS	WHEELBASE 120 in.		LENGTH 200.1 in.	
	TEST WEIGHT 3898		HEIGHT 58.2 in.	
HEADROOM	FRONT 38.7 in.		REAR 36.2 in.	
LEGROOM	FRONT 41.8 in.		REAR 40.2 in.	
SHOULDER ROOM	FRONT 59.3 in.		REAR 57.6 in.	
HIPROOM	FRONT 56.2 in.		REAR 55.5 in.	
INTERIOR VOLUME	FRONT 55.5 cu. ft.		REAR 48.5 cu. ft.	
	COMB 104 cu. ft.		TRUNK 16.2 cu. ft.	
EPA MILEAGE EST. (MPG)	CITY 17	HIGHWAY 24		COMBINED 20

Dodge Charger

5.7L SPFI



TEST VEHICLE DESCRIPTION

MAKE Dodge	MODEL Charger		SALES CODE NO. 29A	
ENGINE DISPLACEMENT	CUBIC INCHES 345		LITERS	5.7
FUEL SYSTEM	Sequential Port Fuel Injection		EXHAUST	Dual
HORSEPOWER (SAE NET)	340 @ 5000		ALTERNATOR	160 Amp
TORQUE	390 lbs-ft @ 4000		BATTERY	800 CCA
COMPRESSION RATIO	9.7:1			
TRANSMISSION	MODEL A580		TYPE 5 Speed Electronic Automatic	
	LOCKUP TORQUE CONVERTER? Yes			
	OVERDRIVE? Yes			
AXLE RATIO	2.82:1			
STEERING	Power Rack & Pinion			
TURNING CIRCLE (CURB TO CURB)	38.9			
TIRE SIZE, LOAD & SPEED RATING	Continental ContiProContact P225/60 R 18 99V			
SUSPENSION TYPE (FRONT)	Independent High Arm SLA with Dual Ball Joint Lower, Coil Spring, Sway Bar			
SUSPENSION TYPE (REAR)	Independent Multi-Link, Coil Spring, Sway Bar			
GROUND CLEARANCE, MINIMUM	5.2 in.	LOCATION Fascia Belly Pan		
BRAKE SYSTEM	Power, Dual Piston Front/Single Piston Rear, Anti-Lock			
BRAKES, FRONT	TYPE Vented Disc		SWEPT AREA 282 sq. in.	
BRAKES, REAR	TYPE Vented Disc		SWEPT AREA 242 sq. in.	
FUEL CAPACITY	GALLONS 19		LITERS	72
GENERAL MEASUREMENTS	WHEELBASE 120 in.		LENGTH 200.1 in.	
	TEST WEIGHT 4107		HEIGHT 58.2 in.	
HEADROOM	FRONT 38.7 in.		REAR	36.2 in.
LEGROOM	FRONT 41.8 in.		REAR	40.2 in.
SHOULDER ROOM	FRONT 59.3 in.		REAR	57.6 in.
HIPROOM	FRONT 56.2 in.		REAR	55.5 in.
INTERIOR VOLUME	FRONT 55.5 cu. ft.		REAR 48.5 cu. ft.	
	COMB 104 cu. ft.		TRUNK 16.2 cu. ft.	
EPA MILEAGE EST. (MPG)	CITY 15	HIGHWAY 23		COMBINED 18

Dodge Magnum

3.5L SPFI



TEST VEHICLE DESCRIPTION

MAKE Dodge	MODEL Magnum		SALES CODE NO. 27A	
ENGINE DISPLACEMENT	CUBIC INCHES 214		LITERS	3.5
FUEL SYSTEM	Sequential Port Fuel Injection		EXHAUST	Single
HORSEPOWER (SAE NET)	250 @ 6400		ALTERNATOR	160 amp.
TORQUE	250 lbs-ft @ 3800		BATTERY	800 CCA
COMPRESSION RATIO	10.0:1			
TRANSMISSION	MODEL A580		TYPE 5 Speed Electronic Automatic	
	LOCKUP TORQUE CONVERTER? Yes			
	OVERDRIVE? Yes			
AXLE RATIO	2.87:1			
STEERING	Power Rack & Pinion			
TURNING CIRCLE (CURB TO CURB)	38.9			
TIRE SIZE, LOAD & SPEED RATING	Continental ProContact P225/60/R18 99V			
SUSPENSION TYPE (FRONT)	Independent High Arm SLA with Dual Ball Joint Lower, Coil Spring, Sway Bar			
SUSPENSION TYPE (REAR)	Independent Multi-Link, Coil Spring, Sway Bar			
GROUND CLEARANCE, MINIMUM	5.2 in.	LOCATION Fascia Belly Pan		
BRAKE SYSTEM	Power, Dual Piston Front/Single Piston Rear, Anti-Lock			
BRAKES, FRONT	TYPE Vented Disc		SWEPT AREA 282 sq. in.	
BRAKES, REAR	TYPE Vented Disc		SWEPT AREA 242 sq. in.	
FUEL CAPACITY	GALLONS 19		LITERS	72
GENERAL MEASUREMENTS	WHEELBASE 120 in.		LENGTH 197.7 in.	
	TEST WEIGHT 3998		HEIGHT 58.3 in.	
HEADROOM	FRONT	38.7 in.	REAR	38.1 in.
LEGROOM	FRONT	41.8 in.	REAR	40.2 in.
SHOULDER ROOM	FRONT	58.7 in.	REAR	57.6 in.
HIPROOM	FRONT	56.2 in.	REAR	56.1 in.
INTERIOR VOLUME	FRONT	55.0 cu. ft.	REAR 51.0 cu. ft.	
	COMB	106.0 cu. ft.	*MAX. CARGO 71.5 cu. ft.	
EPA MILEAGE EST. (MPG)	CITY 17	HIGHWAY 24		COMBINED 20

Dodge Magnum

5.7L SPFI



TEST VEHICLE DESCRIPTION

MAKE Dodge	MODEL Magnum		SALES CODE NO. 29A	
ENGINE DISPLACEMENT	CUBIC INCHES 345		LITERS	5.7
FUEL SYSTEM	Sequential Port Fuel Injection		EXHAUST	Dual
HORSEPOWER (SAE NET)	340 @ 5000		ALTERNATOR	160 amp.
TORQUE	390 lbs-ft @ 4000		BATTERY	800 CCA
COMPRESSION RATIO	9.7:1			
TRANSMISSION	MODEL A580		TYPE 5 Speed Electronic Automatic	
	LOCKUP TORQUE CONVERTER? Yes			
	OVERDRIVE? Yes			
AXLE RATIO	2.82:1			
STEERING	Power Rack & Pinion			
TURNING CIRCLE (CURB TO CURB)	38.9			
TIRE SIZE, LOAD & SPEED RATING	Continental ContiProContact P225/60/R18 99V			
SUSPENSION TYPE (FRONT)	Independent High Arm SLA with Dual Ball Joint Lower, Coil Spring, Sway Bar			
SUSPENSION TYPE (REAR)	Independent Multi-Link, Coil Spring, Sway Bar			
GROUND CLEARANCE, MINIMUM	5.2 in.	LOCATION Fascia Belly Pan		
BRAKE SYSTEM	Power, Dual Piston Front/Single Piston Rear, Anti-Lock			
BRAKES, FRONT	TYPE Vented Disc		SWEPT AREA 282 sq. in.	
BRAKES, REAR	TYPE Vented Disc		SWEPT AREA 242 sq. in.	
FUEL CAPACITY	GALLONS 19		LITERS	72
GENERAL MEASUREMENTS	WHEELBASE 120 in.		LENGTH 197.7 in.	
	TEST WEIGHT 4211		HEIGHT 58.3 in.	
HEADROOM	FRONT 38.7 in.		REAR	38.1 in.
LEGROOM	FRONT 41.8 in.		REAR	40.2 in.
SHOULDER ROOM	FRONT 58.7 in.		REAR	57.6 in.
HIPROOM	FRONT 56.2 in.		REAR	56.1 in.
INTERIOR VOLUME	FRONT 55.0 cu. ft.		REAR 51.0 cu. ft.	
	COMB 106.0 cu. ft.		Max. Cargo 71.5 cu. ft.	
EPA MILEAGE EST. (MPG)	CITY 15	HIGHWAY 23		COMBINED 18

TEST VEHICLE DESCRIPTION SUMMARY

	Ford Police Interceptor 3.27		Chevrolet Impala 9C1		Dodge Charger 3.5L	Dodge Magnum 3.5L
ENGINE DISPLACEMENT – CU. IN.	281		237		214	214
ENGINE DISPLACEMENT – LITERS	4.6		3.9		3.5	3.5
ENGINE FUEL SYSTEM	SMFI		SPFI		SPFI	SPFI
HORSEPOWER (SAE NET)	250		240		250	250
TORQUE (FT. LBS.)	297		240		250	250
COMPRESSION RATIO	9.4:1		9.4:1		10.0:1	10.0:1
AXLE RATIO	3.27		3.29:1		2.87:1	2.87:1
TURNING CIRCLE – FT. CURB TO CURB	40.3		38.0		38.9	38.9
TRANSMISSION	4 Speed elec. auto		4 Speed auto		5 Speed elec. auto	5 Speed elec. auto
TRANSMISSION MODEL NUMBER	4R70W		4T65E		A580	A580
LOCKUP TORQUE CONVERTER	Yes		Yes		Yes	Yes
TRANSMISSION OVERDRIVE	Yes		Yes		Yes	Yes
TIRE SIZE	P235/55R		P225/60R		P225/60R	P225/60
WHEEL RIM SIZE – INCHES	17		16		18	18
GROUND CLEARANCE – INCHES	5.6		7.1		5.2	5.2
BRAKE SYSTEM	Power, ABS		Power, ABS		Power, ABS	Power, ABS
BRAKES – FRONT TYPE	Vented Disc		Vented Disc		Vented Disc	Vented Disc
BRAKES – REAR TYPE	Vented Disc		Solid Disc		Vented Disc	Vented Disc
FUEL CAPACITY – GALLONS	19		17		19	19
FUEL CAPACITY – LITERS	71.9		64.3		72	72
OVERALL LENGTH – INCHES	212.0		200.4		200.1	197.7
OVERALL HEIGHT – INCHES	58.3		58.7		58.2	58.3
TEST WEIGHT – LBS.	4145		3714		3898	3998
WHEELBASE – INCHES	114.6		110.5		120	120
HEADROOM FRONT – INCHES	39.5		39.4		38.7	38.7
HEADROOM REAR – INCHES	37.8		37.8		36.2	38.1
LEGROOM FRONT – INCHES	41.6		42.3		41.8	41.8
LEGROOM REAR – INCHES	38.0		37.6		40.2	40.2
SHOULDER ROOM FRONT – INCHES	60.6		58.7		59.3	58.7
SHOULDER ROOM REAR – INCHES	60.0		58.6		57.6	57.6
HIPROOM FRONT – INCHES	57.4		56.4		56.2	56.2
HIPROOM REAR – INCHES	56.1		57.2		55.5	56.1
INTERIOR VOLUME FRONT – CU. FT.	57.6		56.5		55.5	55.0
INTERIOR VOLUME REAR – CU. FT.	48.8		55.7		48.5	51.0
INTERIOR VOLUME COMB. – CU. FT.	106.4		104.8		104	106.0
TRUNK VOLUME – CU. FT.	20.6		18.6		16.2	71.5
EPA MILEAGE – CITY – MPG	14	10	18	13	17	17
EPA MILEAGE – HIGHWAY – MPG	21	16	27	20	24	24
EPA MILEAGE – COMBINED – MPG	16	12	21	16	20	20

TEST VEHICLE DESCRIPTION SUMMARY

	Dodge Charger 5.7L	Ford Police Interceptor 3.55	Chevrolet Tahoe PPV		Dodge Magnum 5.7L
ENGINE DISPLACEMENT – CU. IN.	345	281	327		345
ENGINE DISPLACEMENT – LITERS	5.7	4.6	5.3		5.7
ENGINE FUEL SYSTEM	SPFI	SMFI	SPFI		SPFI
HORSEPOWER (SAE NET)	340	250	320		340
TORQUE (FT. LBS.)	390	297	340		390
COMPRESSION RATIO	9.7:1	9.4:1	9.5:1		9.7:1
AXLE RATIO	2.82:1	3.55	3.73		2.82:1
TURNING CIRCLE – FT. CURB TO CURB	38.9	40.3	39.0		38.9
TRANSMISSION	5 Speed elec. auto	4 Speed elec. auto	4-Speed Automatic Overdrive		5 Speed elec. auto
TRANSMISSION MODEL NUMBER	A580	4R70W	4L60E		A580
LOCKUP TORQUE CONVERTER	Yes	Yes	Yes		Yes
TRANSMISSION OVERDRIVE	Yes	Yes	Yes		Yes
TIRE SIZE	P225/60R	P235/55R	P265/60R		P225/60R
WHEEL RIM SIZE – INCHES	18	17	17		18
GROUND CLEARANCE – INCHES	5.2	5.6	8.00		5.2
BRAKE SYSTEM	Power, ABS	Power, ABS	Power, ABS		Power, ABS
BRAKES – FRONT TYPE	Vented Disc	Vented Disc	Disc		Vented Disc
BRAKES – REAR TYPE	Vented Disc	Vented Disc	Disc		Vented Disc
FUEL CAPACITY – GALLONS	19	19	26		19
FUEL CAPACITY – LITERS	72	71.9	98.4		72
OVERALL LENGTH – INCHES	200.1	212.0	198.9		197.7
OVERALL HEIGHT – INCHES	58.2	58.3	73.9		58.3
TEST WEIGHT – LBS.	4107	4128	5273		4211
WHEELBASE – INCHES	120	114.6	116		120
HEADROOM FRONT – INCHES	38.7	39.5	40.3		38.7
HEADROOM REAR – INCHES	36.2	37.8	39.2		38.1
LEGROOM FRONT – INCHES	41.8	41.6	41.3		41.8
LEGROOM REAR – INCHES	40.2	38.0	39.0		40.2
SHOULDER ROOM FRONT – INCHES	59.3	60.6	65.3		58.7
SHOULDER ROOM REAR – INCHES	57.6	60.0	65.2		57.6
HIPROOM FRONT – INCHES	56.2	57.4	64.4		56.2
HIPROOM REAR – INCHES	55.5	56.1	60.6		56.1
INTERIOR VOLUME FRONT – CU. FT.	55.5	57.6	62.9		55.0
INTERIOR VOLUME REAR – CU. FT.	48.5	48.8	57.68		51.0
INTERIOR VOLUME COMB. – CU. FT.	104	106.4	120.58		106.0
TRUNK VOLUME – CU. FT.	16.2	20.6	108.9		71.5
EPA MILEAGE – CITY – MPG	15	14	14	11	15
EPA MILEAGE – HIGHWAY – MPG	23	21	19	14	23
EPA MILEAGE – COMBINED – MPG	18	16	16	12	18

VEHICLE DYNAMICS TESTING

TEST OBJECTIVE

Determine each vehicle's high-speed pursuit or emergency handling characteristics and performance in comparison to the other vehicles in the test group. The course used is a 2-mile road-racing type configuration, containing hills, curves, and corners. The course simulates actual conditions encountered in pursuit or emergency driving situations in the field, with the exception of other traffic. The evaluation is a true test of the success or failure of the vehicle manufacturers to offer vehicles that provide the optimum balance between handling (suspension components), acceleration (usable horsepower), and braking characteristics.

TEST METHODOLOGY

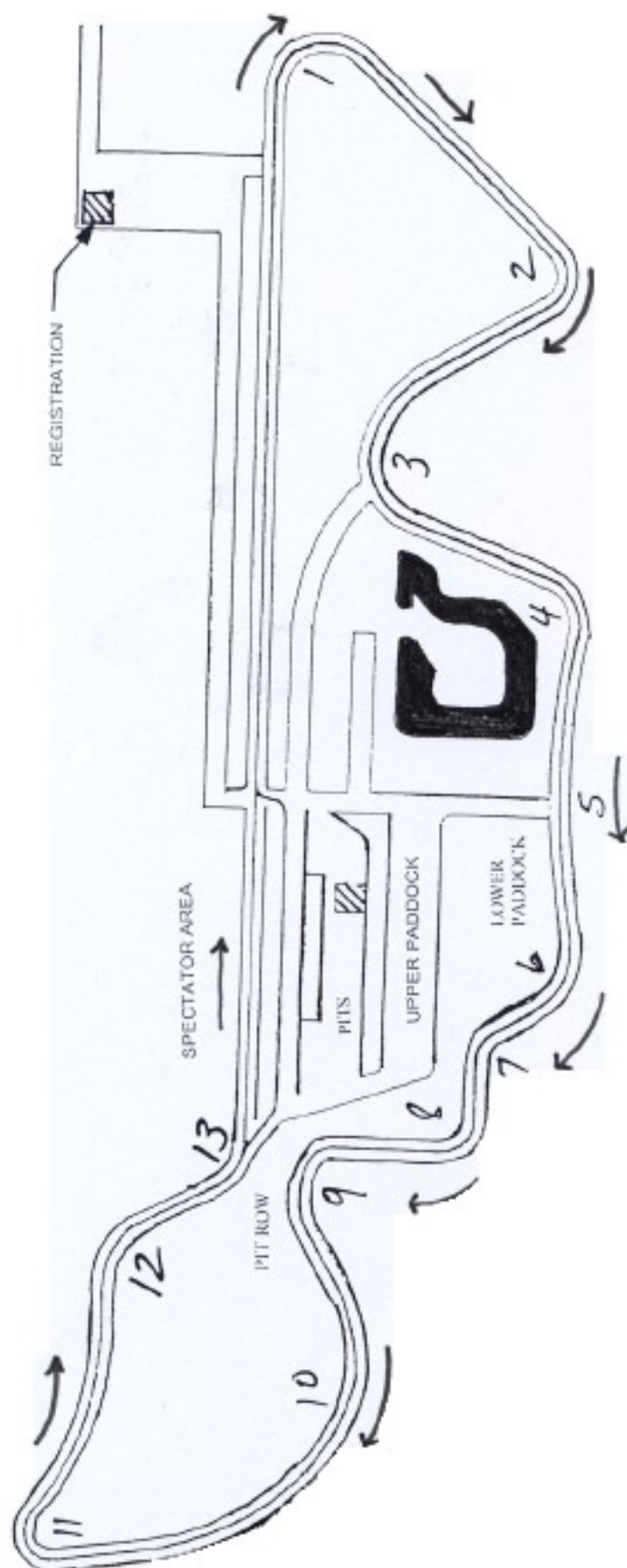
Each vehicle is driven over the course a total of 32 timed laps, using four separate drivers, each driving an 8 lap series. The final score for the vehicle is the combined average (from the 4 drivers) of the 5 fastest laps for each driver during the 8 lap series.



Grattan Raceway Park



7201 Lessiter
Belding, Michigan 48809



Arrows indicate
Michigan State Police
Road Test Course and
Direction of Travel.

VEHICLE DYNAMICS TESTING

Vehicles	Drivers	Lap 1	Lap 2	Lap 3	Lap 4	Lap 5	Average
Ford Police Interceptor 3:27 SPFI	GROMAK	01:39.60	01:39.80	01:39.90	01:40.00	01:40.10	01:39.88
	ROGERS	01:40.90	01:40.90	01:41.00	01:41.00	01:41.10	01:40.98
	WILSON	01:40.90	01:41.20	01:41.40	01:41.70	01:41.80	01:41.40
	FLEGEL	01:40.50	01:40.80	01:40.80	01:41.00	01:41.20	01:40.86
Overall Average							01:40.78
Ford Police Interceptor 3:27 E85 SPFI	GROMAK	01:39.70	01:39.70	01:39.80	01:39.90	01:40.00	01:39.82
	ROGERS	01:40.60	01:40.80	01:40.80	01:40.90	01:41.00	01:40.82
	WILSON	01:41.20	01:41.30	01:41.40	01:41.40	01:41.50	01:41.36
	FLEGEL	01:40.00	01:40.30	01:40.50	01:40.50	01:40.60	01:40.38
Overall Average							01:40.59
Ford Police Interceptor 3:55 SPFI	GROMAK	01:39.70	01:39.90	01:40.00	01:40.50	01:41.40	01:40.30
	ROGERS	01:40.40	01:40.80	01:40.80	01:40.90	01:41.10	01:40.80
	WILSON	01:41.30	01:41.40	01:41.40	01:41.50	01:41.80	01:41.48
	FLEGEL	01:39.90	01:40.10	01:40.20	01:40.30	01:40.60	01:40.22
Overall Average							01:40.70
Chevrolet Impala 9C1 3.9L SPFI	GROMAK	01:43.20	01:43.50	01:43.90	01:43.90	01:44.00	01:43.70
	ROGERS	01:43.40	01:43.80	01:43.90	01:44.00	01:44.10	01:43.84
	WILSON	01:43.50	01:44.00	01:44.30	01:44.40	01:44.40	01:44.12
	FLEGEL	01:41.80	01:42.00	01:42.10	01:42.50	01:42.60	01:42.20
Overall Average							01:43.46
Chevrolet Impala 9C1 3.9L E85 SPFI	GROMAK	01:43.60	01:43.70	01:43.80	01:43.90	01:44.20	01:43.84
	ROGERS	01:42.60	01:42.90	01:43.20	01:43.30	01:43.40	01:43.08
	WILSON	01:42.50	01:42.70	01:42.90	01:43.50	01:43.70	01:43.06
	FLEGEL	01:43.10	01:43.20	01:43.70	01:44.00	01:44.00	01:43.60
Overall Average							01:43.39

VEHICLE DYNAMICS TESTING

Vehicles	Drivers	Lap 1	Lap 2	Lap 3	Lap 4	Lap 5	Average
Chevrolet Tahoe PPV 2WD	GROMAK	01:43.20	01:43.50	01:43.70	01:43.80	01:43.90	01:43.62
	ROGERS	01:43.40	01:43.80	01:43.80	01:43.80	01:43.80	01:43.72
	WILSON	01:44.00	01:44.00	01:44.40	01:44.40	01:44.50	01:44.26
	FLEGEL	01:43.40	01:43.60	01:43.80	01:43.80	01:43.80	01:43.68
Overall Average							01:43.82
Chevrolet Tahoe PPV 2WD E85	GROMAK	01:42.30	01:42.70	01:42.80	01:43.10	01:43.20	01:42.82
	ROGERS	01:43.60	01:43.70	01:43.80	01:43.90	01:44.00	01:43.80
	WILSON	01:43.70	01:43.70	01:44.00	01:44.30	01:44.30	01:44.00
	FLEGEL	01:43.60	01:43.80	01:43.90	01:44.00	01:44.10	01:43.88
Overall Average							01:43.62
Dodge Magnum 3.5L SPFI	GROMAK	01:41.10	01:41.20	01:41.40	01:41.50	01:41.50	01:41.34
	ROGERS	01:42.20	01:42.20	01:42.20	01:42.30	01:42.30	01:42.24
	WILSON	01:42.30	01:42.30	01:42.40	01:42.50	01:42.60	01:42.42
	FLEGEL	01:40.60	01:40.80	01:41.00	01:41.10	01:41.20	01:40.94
Overall Average							01:41.74
Dodge Magnum 5.7L SPFI	GROMAK	01:36.90	01:36.90	01:37.30	01:37.50	01:37.50	01:37.22
	ROGERS	01:37.40	01:37.70	01:37.70	01:37.90	01:38.00	01:37.74
	WILSON	01:38.30	01:38.40	01:38.70	01:38.90	01:38.90	01:38.64
	FLEGEL	01:38.00	01:38.00	01:38.10	01:38.20	01:38.40	01:38.14
Overall Average							01:37.94
Dodge Charger 3.5L SPFI	GROMAK	01:40.70	01:40.80	01:40.90	01:40.90	01:41.10	01:40.88
	ROGERS	01:41.40	01:41.40	01:41.50	01:41.60	01:41.70	01:41.52
	WILSON	01:41.30	01:41.50	01:41.50	01:41.70	01:41.70	01:41.54
	FLEGEL	01:40.60	01:40.70	01:40.70	01:40.70	01:41.20	01:40.78
Overall Average							01:41.18
Dodge Charger 5.7L SPFI	GROMAK	01:36.20	01:36.70	01:36.80	01:36.90	01:37.00	01:36.72
	ROGERS	01:37.30	01:37.40	01:37.40	01:37.50	01:38.00	01:37.52
	WILSON	01:38.90	01:39.00	01:39.60	01:39.60	01:39.70	01:39.36
	FLEGEL	01:37.30	01:37.40	01:37.40	01:37.60	01:37.70	01:37.48
Overall Average							01:37.77

2008 Vehicle Dynamics

